

What is claimed is:

3 1. A device for supplying a process chamber with fluid media having at least
4 one delivery line (17), that has a supply opening (18), and with sealing elements
5 (15, 19) that are associated with the supply opening (18),
6 characterized by tensioning mechanisms (30, 31) for holding the delivery line
7 (17) against a receptacle (15) of the process chamber (10), said receptacle being
8 associated with the supply opening (18).

10 2. The device as recited in Claim 1,

11 wherein the tensioning mechanisms include at least one spring, in particular a
12 helical spring (30, 31).

14 3 The device as recited in Claim 1 or 2

15 wherein the tensioning force is capable of being generated by ambient pressure.

17 4 The device as recited in one of the preceding claims

18 characterized by a guideway (24) for the delivery line (17) in the tensioning
19 direction

21 5. The device as recited in Claim 3 or 4,

22 wherein the delivery line (17), at the end furthest from the supply opening (18), is
23 interconnected in a gas-tight and axially displaceable manner, via fastening
24 elements (16) for gas-tight fastening, to a receiving chamber (12) that encloses
25 the process chamber (10).

27 6. The device as recited in Claim 5,

wherein the furthest end is fastened to a central body (22) that is interconnected with a mounting flange (16) by a bellows (23).

31 7. The device as recited in Claim 6,

1 wherein the central body (22) is displaceably guided on at least one of the bolts
2 (24) that extends out of the mounting flange (16), and
3 wherein the spring (30, 31) is located between a spring hanger (26, 28; 27, 29)
4 located on the bolt (24) and the central body (22).

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6 8. A device as recited in one of the preceding claims,
7 characterized by adjusting mechanisms (26, 27) for adjusting the tensioning
8 force.

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10 9. The device as recited in Claim 8,
11 wherein the bolt is a threaded bolt (24), and the spring hanger is a nut (26, 27)
12 that is located on the bolt (24).

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14 10. The device as recited in one of the preceding claims,
15 wherein the sealing element is a press fit (15, 19).

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17 11. The device as recited in Claim 10,
18 wherein the press fit (15, 19) has a conical, frusto-conical or semi-spherical end
19 face (19) of the delivery line (17) that surrounds the supply opening (18), and
20 wherein the receptacle has a conical, frusto-conical or semi-spherical cavity (15)
21 that is associated with the end face (19).

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23 12. The device as recited in one of the preceding claims,
24 wherein the delivery line (17) is composed of a temperature-resistant and
25 corrosion-resistant material.

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27 13. The device as recited in Claim 12,
28 wherein the delivery line (17) is composed of graphite.

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30 14. The device as recited in one of the preceding claims,
31 characterized by an extension (20) for the delivery line (17).

1 15. The device as recited in one of the preceding claims,
2 characterized by blocking elements (53, 54) for the delivery line (17).

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4 16. The device as recited in Claim 15,
5 wherein the blocking elements (53, 54) block the fluid medium at the supply
6 opening (18).

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8 17. The device as recited in Claim 15 or 16,
9 wherein the blocking element is a needle valve (53, 54).

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11 18. The device as recited in Claim 17,
12 wherein a valve needle (48) of the needle valve has a conical, spherical or semi-
13 spherical tip (53), and
14 wherein a conical, spherical or semi-spherical valve seat (54) is located in the
15 region of the supply opening (18), facing the valve needle (48), and associated
16 with said valve needle.

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18 19. The device as recited in Claim 17 or 18,
19 wherein actuating elements (40) for the needle valve (53, 54) are located on the
20 end of the delivery line (17) that is furthest from the supply opening (18).

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22 20. The device as recited in Claim 19,
23 wherein the actuating elements (40) are fastened to the central body (22).

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25 21. The device as recited in one of the preceding Claims 18 through 20,
26 wherein the valve needle (48) is preloaded against the valve seat (15) with a
27 predetermined closing force.

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29 22. The device as recited in Claim 21,
30 wherein the weight of the valve needle (48) serves as closing force.

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1 23. The device as recited in one of the Claims 18 through 22,
2 characterized by a tension element that is interconnected with the valve needle
3 (46, 47).

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5 24. The device as recited in Claim 23,
6 wherein it is possible to transmit a tensioning force, but not a compressive force,
7 using the tension element (46, 47).

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9 25. The device as recited in Claim 24,
10 wherein the tension element has a first tension part (46) that is connected with
11 the actuating element (40), and a second tension part (47) that is connected with
12 the valve needle (48), and the two said tension parts are interconnected in a
13 limited area (51) in a manner that allows them to be displaced toward each other.

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15 26. The device as recited in Claim 25,
16 wherein the first tension part (46) and the second tension part (47) are
17 interconnected by an elongated hole (51) and a driver (52).

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19 27. The device as recited in one of the Claims 23 through 26,
20 wherein the tension element (46, 47) is interconnected with one end of a bellows
21 (34), the other end of which is interconnected with the central body (22), and
22 wherein the one end is capable of being displaced by the actuating element (40)
23 in the longitudinal direction of the tension element (46, 47).

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25 28. An application of a device as recited in one of the preceding claims for
26 manufacturing products, in particular metal alloys or for growing crystals, for
27 manufacturing lenses, prisms, light-conducting rods, optical windows and optical
28 components for DUV photolithography, stepping motors, excimer lasers, wafers,
29 computer chips as well as integrated circuits and electronic devices that contain
30 such circuits and chips.

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- 1 29. A process device, including
- 2 - a tank with a tank wall,
- 3 - a process container—with a container wall—located in the tank,
- 4 - at least one pipe—that extends through an opening in the wall of the
- 5 tank—for supplying or withdrawing a fluid medium into or out of the
- 6 process container; the pipe having a pipe axis and a first bore hole in a
- 7 first axial pipe end adjacent to the process container; the process
- 8 container having a second bore hole in its container wall, the second
- 9 bore hole being diametrically opposed to the first bore hole,
- 10 - a sealing element that seals off the pipe, in a fluid-tight manner, from
- 11 the opening in the tank wall,
- 12 - a guideway element that moveably guides the pipe relative to the tank
- 13 in the direction of the pipe axis, and
- 14 - a tensile force-producing device for producing a tensile force that
- 15 presses the pipe in the direction of its pipe axis against the wall of the
- 16 process container.